

REMARKS

Claims 1-12 were examined. Claims 1-12 were rejected. Claims 1-12 were objected to. Claims 2, 4-10 and 12 remain unchanged. Claims 1, 3, and 11 are currently amended. Claims 1-12 remain pending in this application.

Applicant notes that the Examiner finds claims 3-10 are rejected as depending on a rejected base claim, but would be allowable if rewritten in independent form including all limitations of the claims from which they depend. Claim 3 was originally dependent from claim 1. Claim 3 has been rewritten in independent form including all limitations of claim 1 from which it originally depended. Claims 4-10 are ultimately dependent from claim 3. Thus, newly amended claim 3 and claims 4-10 dependent from claim 3 should, therefore, be allowable and the Examiner is respectfully requested to allow these claims.

The Examiner has objected to claim 1 because of various informalities. Specifically, the Examiner points out that the terms "a source of a stream of packets" and "a payload" in line 4 do not refer back to the same terms in line 2. The Examiner has also rejected claims 1-12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. More specifically, the Examiner finds that the terms "the first and second packet stream sources", "the first packet stream source", and "the second packet stream source", variously in claim 1, lines 7-9, claim 2, lines 2-5, claim 3, lines 3 & 5, and in claim 10, lines 3-6, have no antecedent basis; and that the same problem exists with the term "the respective payloads" in claim 1, line 8, claim 3 line 5, and claim 6 lines 2-3.

In order to more clearly define the invention, and to respond to the Examiner's rejection and objection, Applicant has amended claim 1 to recite, "... a source of a first stream of packets ...; [and] a source of a second stream of packets" This should overcome the Examiner's objection to the terms "a source of a stream of packets" in claim 1 and rejection under 35 U.S.C. § 112 of the lack of antecedent basis for the terms "first and second packet stream sources" in claims 1, 2, 3 and 10.

However, Applicant respectfully disagrees that the terms "a payload" as recited in claim 1 and the subsequent references to "the respective payloads" in claims 1, 3 and 6 are either informal

or lack antecedent basis. Newly amended claim 1 recites, "... a source of a first stream of packets, each including a payload, ...; [and] a source of a second stream of packets, each including a payload...." Applicant respectfully points out that the phrases "a payload" do not exist in a vacuum by themselves, but instead exist within a larger context of defining a characteristic of the first and second streams of packets: i.e. each packet in the first stream of packets includes a payload and each packet in the second stream of packets includes a payload. One skilled in the art will readily understand that all packets inherently have a payload, in a similar manner as all circles inherently have a radius. A recitation of two packet streams in which each packet of each stream includes a payload is not informal, but a recital of an inherent characteristic of a packet.

Subsequent references to "respective payloads" also exist in a larger context. In claim 1, the subsequent reference is, "... a protocol decoder, coupled to the first and second packet stream sources, for extracting the respective payloads from the packets from a selected one of the first and second packet stream sources." That is, one of the packet stream sources is selected. The respective payloads in the packets in the selected packet stream are extracted. Applicant contends that this recitation is clear and unambiguous and provides one skilled in the art with all that is necessary to determine the proper prior antecedent for the recitation.

Similarly, newly amended claim 3 (rewritten in independent from and including all limitations of claim 1 from which it originally depended, as described above) recites in pertinent part, "... a processor ... for processing the packets from the first packet stream source to extract the respective payloads, [and] ... for processing the packets from the second packet stream source to extract the respective payloads" Again, the term "the respective payloads" exists in the context of processing the packets from the first packet stream (each of which include a payload, as recited in claim 1) to extract the respective payloads; and processing the packets from the second packet stream (each of which include a payload, as recited in claim 1) to extract the respective payloads. Applicant contends that these recitations are clear and unambiguous and provide one skilled in the art with all that is necessary to determine the proper prior antecedent for the recitations.

Similarly, claim 6, indirectly dependent from claim 3 (rewritten to include all the limitations of claim 1), recites in pertinent part, "... a buffer for storing the respective extracted

payloads at a location in the memory" Again, the term "the respective ... payloads" exists in the context of storing respective payloads, extracted from a selected one of the first and second packet streams (claim 3) at a location in a buffer memory. Applicant contends that this recitation is clear and unambiguous and provides one skilled in the art with all that is necessary to determine the proper prior antecedent for the recitation.

Furthermore, the Examiner's suggested amendment to recite "a first payload" and "a second payload" would not have accurately corrected the informality and antecedent problem suggested by the Examiner to exist. As will be readily understood by one skilled in the art, both the source of a first stream of packets and the source of a second stream of packets produce successive packets, each packet containing a payload which is potentially and most likely different from the payloads in any other packet in either stream. Thus, to recite, for example, "... a first stream of packets each including a first payload", when every packet from in the first packet stream contains a unique payload, is not correct and would result in an inaccurate description. Applicant is open to other suggestions from the Examiner. However, as described above, Applicant contends that reciting "a source of a first stream of packets, each including a payload, ...; [and] a source of a second stream of packets, each including a payload" (emphasis added) clearly, accurately and unambiguously describes what is regarded as the invention. Retaining this recitation should not result in a lack of clarity because there is no subsequent reference in any of the other claims to any particular payload in any particular packet. Instead, the only subsequent references are to extracting respective payloads (whatever they may contain) from packets in a selected packet stream (claims 1 and 6) or extracting respective payloads from packets in the first packet stream or extracting respective payloads from packets in the second packet stream (claim 3).

The amendments to claim 1, described above, should overcome the Examiner's objection to claim 1. Amended claim 1 should, therefore, be allowable over this objection. Claims 2, 11 and 12, dependent from claim 1; amended claim 3, including all the limitations of claim 1; and claims 4-10, dependent from claim 3; should all be allowable over this objection for the same reasons given above with respect to claim 1. The Examiner is respectfully requested to reconsider and withdraw the objection to claims 1-12.

The amendments to claim 1, described above, should also overcome the Examiner's rejection of claim 1 under 35 U.S.C. § 112 with respect to both the terms, "first and second packet stream sources" "the first packet stream source", "the second packet stream source", and "the respective payloads". Claims 2, 11 and 12, dependent from claim 1; amended claim 3, including all the limitations of claim 1; and claims 4-10, dependent from claim 3; should all be allowable over this rejection for the same reasons given above with respect to claim 1. The Examiner is respectfully requested to reconsider and withdraw this rejection.

The Examiner has also rejected claims 9, 11, and 12 under 35 U.S.C. § 112, second paragraph, and claims 4-5 and 8-9 as depending from a rejected claim. More specifically, the Examiner contends that in claim 9, line 4, the term "the entry" is not clear because it is not known which 'entry' is being referred to. Applicant respectfully disagrees with the Examiner.

Claim 9 is dependent from claim 8. Claim 8 recites in pertinent part, "... the packet handler is an interrupt handler stored in the memory at a location; and one of the entries in the interrupt vector points to the location of the packet handler." Claim 9 recites in pertinent part, "... the entry in the interrupt vector pointing to the location of the packet handler is responsive to the interrupt signal from the selected packet stream source." Recitation in claim 9 of "the entry in the interrupt vector pointing to the location of the packet handler" refers to the recitation in claim 8, "one of the entries in the interrupt vector points to the location of the packet handler." Applicant deems the combination of these recitations in claims 8 and 9 to be clear. The Examiner is respectfully requested to reconsider and withdraw this rejection and to allow claim 9.

The Examiner contends in claim 11, line 3 that the term "the received packets" has no antecedent basis. In order to more clearly define the invention and to respond to the Examiner's rejection, Applicant has amended claim 11 to recite, "a payload processor coupled to the protocol decoder for processing the respective payloads extracted from the packets from the selected packet stream source." Claim 11 is dependent from claim 1 and this recitation finds antecedent basis in the recitation in claim 1, "a protocol decoder ... for extracting the respective payloads from the packets from a selected one of the first and second packet stream sources." In view of the amendment made to claim 11, Applicant respectfully requests that the Examiner reconsider and withdraw this rejection and to allow amended claim 11.

The Examiner contends that the term "the payload" is claim 12, line 3, is not clear because it is not known which payload is being referred to. Applicant respectfully disagrees with the Examiner. Claim 1 recites in pertinent part, "... a source of a first stream of packets, each including a payload, ...; [and] a source of a second stream of packets, each including a payload" and claim 12 recites in pertinent part, "... each packet in the first and second packet streams further comprises a header containing information related to the payload...." That is, in claim 1, each packet (in both the first and second packet stream) is recited as including a payload. In claim 12, each packet in the first and second packet streams is recited as further comprising a header containing information related to the payload (already recited in claim 1).

As described above, one skilled in the art will understand that packets inherently include a payload. The recitation in claim 1 of "a source of a first stream of packets, each including a payload ... [and] a source of a second stream of packets, each including a payload" (emphasis added) provides the antecedent basis for the recitation in claim 12 that "each packet in the first and second packet streams further comprises a header containing information related to the payload" (emphasis added). Similarly to the payload included in each packet, one skilled in the art will understand that packets inherently may include a header containing information related to the payload. Applicant contends that the recitations in claims 1 and 12 are clear, accurate, unambiguous and particularly point out and distinctly claim the subject matter regarded as the invention. Applicant respectfully requests that the Examiner reconsider and withdraw this rejection and to allow claim 12.

The Examiner has also rejected claims 1-2 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,356,950 (Tillmann) in view of U. S. Patent 5, 936,962 (Haddock). Applicant respectfully traverses this rejection.

Claim 1 recites in pertinent part, "... a source of a first stream of packets ... having a first transport protocol; a source of a second stream of packets ... having a second transport protocol; a protocol decoder, ... for extracting the respective payloads from the packets from a selected one of the first and second packet stream sources."

Neither Tillmann nor Haddock disclose or suggest a source of a first stream of packets having a first transport protocol and a second stream of packets having a second transport protocol,

nor a protocol decoder for extracting respective payloads from packets from a selected one of the first and second packet stream sources, as is recited in claim 1.

Instead, Tillmann discloses a protocol decoder (Figs 1, 2, and 3), which is controlled by software (Fig. 3) automatically generated in response to a user prepared protocol specification (140). The Tillmann protocol decoder processes packets in an input packet stream having a transport protocol (described in the protocol specification 140). Decoding packets from a single packet stream source 125 is illustrated and described in detail, though decoding packets from more than one source is suggested (col. 4, lines 44-47). However, there is no disclosure or suggestion in Tillmann of processing multiple packet stream sources having respectively different transport protocols, as is recited in claim 1. Furthermore, there is no disclosure or suggestion in Tillmann that one of the packet streams is selected and the payloads extracted from the packets of the selected one of the packet streams, as is recited in claim 1.

Haddock discloses a CSMA/CD MAC protocol (e.g. IEEE 802.3 or Ethernet) LAN repeater or hub (see col. 1, lines 22-27). In a repeater or hub, packets are received from one node and transmitted to the other node(s) unprocessed, as they are received. That is, no processing is performed on the payloads included in each packet. Thus, Haddock does not disclose a protocol decoder for extracting respective payloads from received packets, as is recited in claim 1. Haddock does disclose a hub including a plurality of bidirectional terminals (Figs. 1 & 4, 111-114; Fig. 5, 511, 512) the input terminals of which act as (e.g. four) sources of respective streams of packets. However, because the disclosed repeater or hub operates to forward packets unprocessed from one node to the other node(s), all nodes must be responsive to packets in the same protocol (e.g. Ethernet or IEEE 802.3). Consequently, Haddock cannot disclose a source of a first stream of packets having a first transport protocol and a second stream of packets having a second transport protocol, as is recited in claim 1.

Applicant respectfully points out that for a combination of references to render a claim unpatentable, that combination of references must disclose or suggest every limitation of that claim. Neither Tillmann nor Haddock show or suggest a source of a first stream of packets having a first transport protocol and a second stream of packets having a second transport protocol. Furthermore, neither Tillmann nor Haddock show or suggest a protocol decoder for extracting the

respective payloads from a selected one of the first and second packet stream sources, all as recited in claim 1. Because the combination of Tillmann and Haddock suggested by the Examiner does not disclose or suggest each and every limitation recited in claim 1, they cannot be said to render claim 1 unpatentable. Applicant, therefore, deems claim 1 allowable over Tillmann and Haddock. The Examiner is respectfully requested to reconsider and withdraw this rejection.

Claims 2, 11 and 12, dependent from, and further defining the invention recited in, claim 1 are deemed allowable for the same reasons given above with respect to claim 1. For these reasons, the Examiner is respectfully requested to reconsider and withdraw this rejection. However, Applicant makes the following further comments on claim 2.

Claim 2, dependent from claim 1, recites in pertinent part, "a selector, having respective input terminals coupled to the first and second packet stream sources, and an output terminal coupled to the protocol decoder, and responsive to a select signal for coupling one of the first and second packet stream sources to the protocol decoder." As described above, Tillmann does not disclose or suggest a protocol decoder for extracting respective payloads from a selected one of the first and second packet stream sources, as recited in claim 1. Tillmann does suggest multiple input packet streams (col. 4, lines 46-47), but there is no disclosure or suggestion of processing of those multiple input packet streams. More specifically, there is no disclosure or suggestion that any of the multiple input packet streams could be or should be processed differently than the processing described in detail for a single packet stream. Tillmann, therefore, provides no motivation for selecting one of the multiple packet streams for different processing. Consequently, Tillmann cannot disclose a selector for coupling a selected one of the first and second packet stream sources to the protocol decoder, as is recited in claim 2.

As described above, Haddock does not disclose or suggest a protocol decoder for extracting respective payloads from packets from a packet stream, as is recited in claim 1. Haddock does disclose multiple bidirectional terminals, coupled to corresponding nodes, for receiving and transmitting packet streams and a selector (Figs. 6 & 7 - 610) coupled to them. But, as described above, Haddock passes all packets received from one node as transmitted to all the other nodes (i.e. a collision). The selector 610 has input terminals coupled to respective sources of packet

streams, but the output terminal is coupled back to the nodes, and not to a (non-existent) protocol decoder, as is recited in claim 2.

In view of the above amendments and arguments, claims 1-12 are deemed allowable. The Examiner is respectfully requested to reconsider and withdraw the rejections, and to allow the amended application.

Respectfully submitted,

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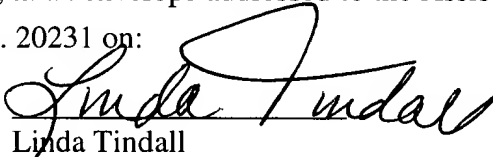
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